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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,308	10/22/2003	Richard D. Dettinger	ROC920030320US1	6406
46797 7590 08/27/2007 IBM CORPORATION, INTELLECTUAL PROPERTY LAW DEPT 917, BLDG. 006-1 3605 HIGHWAY 52 NORTH ROCHESTER, MN 55901-7829			EXAMINER PHAM, KHANH B	
			ART UNIT 2166	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/691,308

Applicant(s)

DETTINGER ET AL.

Examiner

Khanh B. Pham

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 7, 9-11, 14-18, 20-23 and 26-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 7, 9-11, 14-18, 20-23 and 26-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. In view of the Appeal Brief filed on 5/29/2007, PROSECUTION IS HEREBY REOPENED. New ground of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

**Claims 21-23, 26-27** are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims **lack the necessary physical articles or objects to constitute a machine** or a manufacture within the meaning of 35 USC 101. They are clearly not a

series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, functional descriptive material *per se*.

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." Both types of "descriptive material" are nonstatutory when claimed as descriptive material *per se*, 33 F.3d at 1360, 31 USPQ2d at 1759. When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994)

Merely claiming nonfunctional descriptive material, i.e., abstract ideas, stored on a computer-readable medium, in a computer, or on an electromagnetic carrier signal, does not make it statutory. See *Diehr*, 450 U.S. at 185-86, 209 USPQ at 8 (noting that the claims for an algorithm in *Benson* were unpatentable as abstract ideas because "[t]he sole practical application of the algorithm was in connection with the programming of a general purpose computer.").

***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-4, 6-7, 9-11, 14-18, 20-23, 26-30** are rejected under 35 U.S.C. 102(b) as being anticipated by Goiffon et al. (US 6,453,312 B1), hereinafter "**Goiffon**".

**As per claim 1**, Goiffon teaches a method for context-sensitive searching of fields of a data repository using multiple levels of term expansion, comprising:

- "receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term" at Col. 14 lines 44-65 and Figs. 4-8 ;
- "obtaining one or more parameters associated with the base search term, wherein the one or more parameters associated with the base search term comprises a user-specified level of expansion" at Col. 14 lines 44-65 and Figs. 4-8;
- "obtaining, based at least in part on the user-specified level of expansion, one or more expanded search terms" at Col. 15 lines 3-20; and
- "prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms" at Col. 17 lines 5-

30.

**As per claim 2**, Goiffon teaches the method of claim 1, wherein “the one or more parameters associated with the base search term comprise a name of the at least one field” at Figs. 4-8.

**As per claim 3**, Goiffon teaches the method of claim 1, wherein “the one or more parameters associated with the base search term comprise a name of a table containing the at least one field” at Figs. 3-8.

**As per claim 4**, Goiffon teaches the method of claim 1, wherein “different one or more expanded search terms are obtained for the at least one base search term depending on the name of the at least one field” at Figs. 3-8.

**As per claim 6**, Goiffon teaches a method for searching fields of a data repository using multiple levels of term expansion, comprising:

- “receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term” at Col. 14 lines 44-65 and Figs. 4-8;
- “providing an interface allowing a user to specify a level of expansion associated with the base search term” at Figs. 4-8;

- “obtaining the level of expansion associated with the base search term” at Col. 16 lines 47-50 and Figs. 4-8;
- “obtaining, based on the base search term and the associated level of expansion, one or more expanded search terms” at Col. 15 lines 3-22; and
- “prior to executing the query, modifying the query to contain one or more conditions including the one or more expanded search terms” at Col. 17 lines 5-30.

**As per claim 7**, Goiffon teaches the method of claim 6, wherein “the base search term corresponds to an instance data value of the at least one field” at Figs. 3-8.

**As per claim 9**, Goiffon teaches the method of claim 6, wherein “obtaining one or more expanded search terms comprises selecting a set of expanded search terms from a plurality of sets of expanded search terms, each set corresponding to a different level of expansion” at Col. 17 lines 5-30 and Figs. 3-8.

**As per claim 10**, Goiffon teaches the method of claim 9, wherein “the number of expanded search terms in each set is dependent on the corresponding level of expansion” at Col. 17 lines 5-30 and Figs. 3-8.

**As per claim 11**, Goiffon teaches a method for context-sensitive searching of fields of a data repository, comprising:

- “receiving, from a user, a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term” Col. 14 lines 44-65 and Figs. 4-8;
- “obtaining, based one or more parameters associated with the base search term, one or more expanded search terms” at Col. 14 lines 44-65 and Figs. 4-8;
- “prior to executing the query, modifying the query to contain one or more conditions based on the one or more expanded search terms” at Col. 17 lines 5-30;
- “wherein the one or more parameters associated with the base search term comprises a name of the at least one field and different one or more expanded search term are obtained for the at least one base search term depending on the name of the at least one field” at Col. 14 lines 44-65 and Figs. 3-8.

**As per claim 14**, Goiffon teaches the method of claim 11, wherein “the one or more parameters associated with the base search term comprise a name of a table containing the at least one field” at Figs. 3-8.

**As per claim 15**, Goiffon teaches the method of claim 11, wherein “the one or more parameters associated with the base search term comprise a level of expansion” at Col. 14 lines 44-65 and Figs. 4-8



**As per claim 16**, Goiffon teaches the method of claim 15, wherein “the level of expansion is dependent on one or more other ones of the one or more parameters” at Col. 14 lines 44-65 and Figs. 4-8.

**As per claim 17**, Goiffon teaches a computer-readable storage medium containing a program for searching fields of a data repository using multiple levels of term expansion which, when executed, performs operations comprising:

- “providing a first interface allowing a user to build a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term” at Col. 14 lines 44-65 and Fig. 4;
- “providing a second interface allowing the user to specify expanded search terms to be associated with the at least one base search term” at Figs. 5-8;
- “prior to executing the query, modifying the query to contain one or more conditions including the one or more specified expanded search terms” at Col. 17 lines 5-30;
- “wherein the second interface allows a user to specify different set of expanded search terms associated with different levels of expansion” at Figs. 5-8.

**As per claim 18**, Goiffon teaches the computer-readable storage medium of claim 17, wherein “the second interface is accessible from the first interface” at Figs. 4-8.

**As per claim 20**, Goiffon teaches the computer-readable storage medium of claim 17, wherein “the different levels of expansion are determined, at least in part, based on one or more credentials of the user” at Col. 10 lines 25-35.

**As per claim 21**, Goiffon teaches a data processing system, comprising:

- “a collection of data” at Col. 5 lines 4-8;
- “at least one expanded term repository” at Col. 7 lines 12-30; and
- “an executable component configured to receive a query containing at least one condition for searching the collection of data” at Fig. 4,
- “obtain, based on at least one base search term included in the at least one condition and at least one parameter indicative of a context of the query, one or more expanded search terms contained in the at least one expanded term repository” at Col. 14 lines 44-65, Col. 17 lines 5-30 and Figs. 4-8, and
- “modify the query to contain one or more conditions based on the one or more expanded search terms” at Col. 17 lines 30-50;
- “wherein the at least one expanded term repository comprises a single repository containing different sets of expanded search terms associated with the same base term” at Col. 7 lines 12-30.

**As per claim 22**, Goiffon teaches the system of claim 20, wherein “the collection of data is a relational database” at Col. 7 lines 4-10.

**As per claim 23**, Goiffon teaches the system of claim 21, wherein “the collection of data is a text document” at Col. 7 lines 4-10.

**As per claim 26**, Goiffon teaches the system of claim 21, wherein “the at least one parameter indicative of a context of the query is indicative of a portion of the collection of data involved in the at least one condition” at Col. 14 lines 44-65 and Figs. 4-8.

**As per claim 27**, Goiffon teaches the system of claim 26, wherein “the at least one parameter indicative of a context of the query comprises a name of a table containing the at least one field” at Col. 14 lines 44-65 and Figs. 3-8.

**As per claim 28**, Goiffon teaches a method of searching fields of a data repository using dynamic term expansion, comprising:

- “obtaining a query containing at least one condition for searching at least one field of the data repository, wherein the at least one condition includes at least one base search term” Col. 14 lines 44-65 and Figs. 4-8;
- “identifying a set of expanded terms associated with the base search term” at Col. 15 lines 3-20;
- “generating a pointer to the identified set of expanded search terms” at Col. 7 lines 39-55, Col. 8 lines 35-45 and Col. 10 lines 23-33;

- “and prior to executing the query, modifying the query to contain one or more conditions based on one or more expanded search terms retrieved using the pointer” at Col. 15 lines 3-23.

**As per claim 29**, Goiffon teaches the method of claim 28, further comprising “modifying the identified set of expanded search terms after generating the pointer” at Col. 10 lines 23-36.

**As per claim 30**, Goiffon teaches the method of claim 28, wherein “the pointer comprises a directory path to a database” at Col. 10 lines 23-25 and Fig. 1.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-4, 6-7, 9-11, 14-18, 20-23, 26-30 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed

invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the Claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(571) 272-3574** for faster service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2166

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khanh B. Pham  
Primary Examiner  
Art Unit 2166

August 23, 2007



**HOSAIN ALAM**  
**SUPERVISORY PATENT EXAMINER**